

CLAIMS

1. A surgical probe (10) comprising a handle (14) and a shaft (12) which is connected to the handle (14) and has two axially mutually spaced
5 electrodes (16, 18), of which an electrode nearer the handle forms a proximal electrode (18) and the other electrode which is far from the handle forms a distal electrode (16), wherein the electrodes respectively form an outside surface of the shaft and are separated from each other by an insulator (20), wherein the outside diameter of the two electrodes (16, 18) and the outside
10 diameter of the insulator (20) are approximately equal and wherein the shaft (12) has a fluid passage (26) for a cooling fluid, which extends in the interior of the shaft from the handle into the distal electrode,

characterised in that the shaft has a distally closed hollow body (30) which is connected to the handle (14) and forms the distal electrode (16),
15 carries the insulator (20) as well as the proximal electrode (18) and an insulating layer (36) which is arranged in the radial direction between the hollow body (30) and the proximal electrode (18).

2. A surgical probe as set forth in claim 1 characterised in that the
20 insulating layer (36) is arranged both between the hollow body (30) and the proximal electrode (18) and also between the hollow body (30) and the insulator (20).

3. A surgical probe as set forth in claim 1 or claim 2 characterised in
25 that the insulating layer (36) is formed by shrink tube.

4. A surgical probe as set forth in one of claims 1 through 3 characterised in that the proximal electrode (18) is formed by a metal tube (40) of a diameter which is substantially equal over its length and of
30 substantially equal wall thickness.

5. A surgical probe as set forth in one of claims 1 through 4 characterised in that the hollow body (30) is closed at its distal end.

6. A surgical probe as set forth in claim 5 characterised in that the fluid passage (26) extends in the hollow body to the closed end thereof and is of a diameter which is substantially equal throughout.

7. A surgical probe as set forth in one of claims 1 through 6 characterised in that the hollow body (30) is shaped to a point at its distal end.

8. A surgical probe as set forth in one of claims 1 through 7 characterised in that in the region of the distal electrode (16) the hollow body (30) is of an outside diameter which is approximately equal to the outside diameter of the proximal electrode (18) or of the insulator (20).

9. A surgical probe as set forth in one of claims 1 through 8 characterised in that the hollow body (30) is of a smaller diameter in the region of the insulator (20) and the distal electrode (16) than in the region of the proximal electrode (18).

10. A surgical probe as set forth in one of claims 1 through 9 characterised by a hose (42) in the interior of the fluid passage (26) with a mouth opening in the proximity of the closed distal end of the fluid passage (26), which hose is so arranged and connected that a cooling fluid is to be passed through the hose (42) into the proximity of the distal end of the fluid passage (26), there issues from the mouth opening of the hose (42) and can flow back between the hose (42) and the wall of the fluid passage (26) to the proximal end of the shaft (12).

11. A surgical probe as set forth in one of claims 1 through 10 characterised in that at its proximal end the shaft (12) is connected to the handle (14) and is there partially embedded in sealing material (46) in such a way that the tube (40) forming the proximal electrode is completely
5 embedded at its proximal end in the sealing material (46) while the proximal end of the hollow body (30) projects from the sealing material (46).

12. A surgical probe as set forth in claim 11 characterised in that the proximal electrode (18) is electrically contacted within the sealing material
10 (46).

The invention concerns a surgical probe comprising a handle and a shaft which is connected to the handle and has two axially mutually spaced electrodes, of which an electrode nearer the handle forms a proximal electrode and the other electrode which is far from the handle forms a distal electrode, wherein the electrodes respectively form an outside surface of the shaft and are separated from each other by an insulator, wherein the outside diameter of the two electrodes and the outside diameter of the insulator are approximately equal and wherein the shaft has a fluid passage for a cooling fluid, which extends in the interior of the shaft from the handle into the distal electrode. It is characterised in that the shaft has an integral hollow body which is connected to the handle and forms the distal electrode, carries the insulator as well as the proximal electrode and an insulating layer which is arranged in the radial direction between the hollow body and the proximal electrode.

Translation of German words appearing in the drawing:

In Figure 3:

Spitzenelektrode means tip electrode

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In Figure 5:

Kontakt means contact